

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

P52GL Revision 6 Hartzell HC-C4Y April 1, 2003
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TYPE CERTIFICATE DATA SHEET NO. P52GL

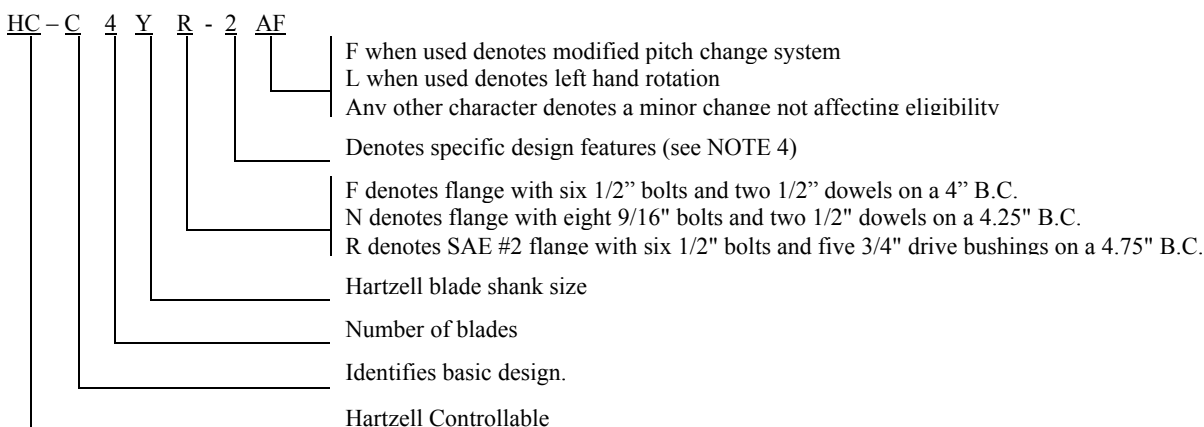
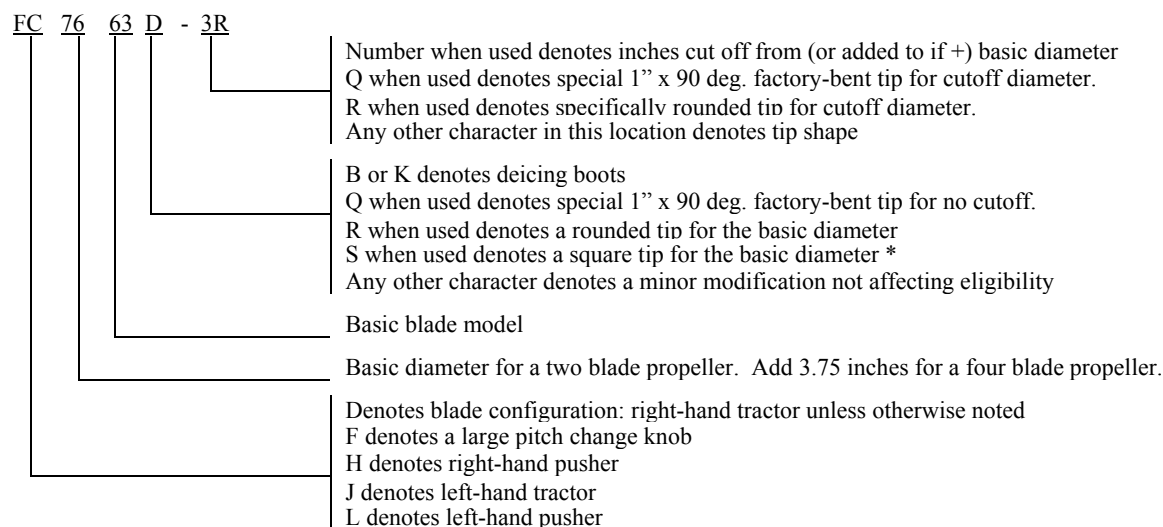
Propellers of models described herein conforming with this data sheet (which is part of Type Certificate No. P52GL) and other approved data on file with the Federal Aviation Administration meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Federal Aviation Regulations provided they are installed, operated and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

Type Certificate Holder	Hartzell Propeller Inc. Piqua, OH 45356
Type	Constant speed; hydraulic (see NOTES 3 & 4)
Engine flange	Special flange (see NOTE 1)
Hub material	Aluminum Alloy
Blade material	Aluminum Alloy
Number of blades	Four
Hub Models	HC-C4YF-1, HC-C4YF-2, HC-C4YR-2, HC-C4YN-2 (see NOTES 1 & 4)

Blades (see NOTES 2 & 6)	Maximum Continuous		Takeoff		Diameter Limits (see NOTE 2)	Approx. Max. Wt. Complete (For Reference Only) (See NOTES 3 & 7)
	HP	RPM	HP	RPM		
<u>Non-counterweighted propellers HC-C4YF-1</u>						
6660-0 to 6660-6	400	2650	400	2650	70” to 64” (-0 to -6)	97.0 lb.
7063+2 to 7063-4	400	2700	400	2700	75.75” to 69.75” (+2 to -4)	93.0 lb.
7663-4 to 7663-8	400	2650	400	2650	75.75” to 71.75” (-4 to -8)	97.0 lb.
8459-12 to 8459-16	400	2650	400	2650	75.75” to 71.75” (-12 to -16)	100.0 lb.
<u>Counterweighted propellers HC-C4YF-2, HC-C4YN-2, HC-C4YR-2</u>						
C6660-0 to C6660-6	400	2650	400	2650	70” to 64” (-0 to -6)	117.0 lb.
C7063+2 to C7063-4	400	2700	400	2700	75.75” to 69.75” (+2 to -4)	113.0 lb.
C7663-4 to C7663-8	400	2650	400	2650	75.75” to 71.75” (-4 to -8)	117.0 lb.
C8459-12 to C8459-16	400	2650	400	2650	75.75” to 71.75” (-12 to -16)	120.0 lb.

Certification Basis:	FAR Part 35 with amendments 35-1 through 35-4 effective May 2, 1977. Type Certificate No. P52GL issued September 21, 1977 under Delegated Option Authorization provisions of FAR Part 21 Subpart J. Date of application for Type Certificate: August 2, 1977.
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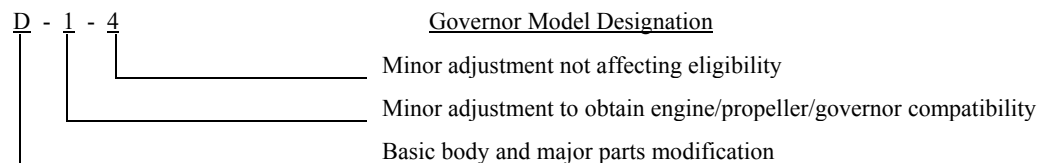
Production Basis:	Production Certificate no. 10
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NOTE 1. Hub Model DesignationNOTE 2: Blade Model Designation

* Blades may incorporate either round or square tips, yet may not be marked with an "R" or "S" in their model designation. This character is used to distinguish between two or more tip shapes available at the same diameter. Certain blades use "S" to denote shot peening of the exterior surface.

NOTE 3. Pitch Control

- (a) Approved with Hartzell governors per drawings C-4770 and C-4772. Wt.: 4.5 lb. (see NOTE 10)



- (b) Woodward model X210XXX or X210X-XXX. Wt.: 3.5 lb.

NOTE 4. Feathering The -1 models do not feather. The -2 models incorporate feathering and unfeathering features.
Reversing Not applicable.

NOTE 5. Left-Hand Models

The left-hand version of an approved propeller model is approved at the same rating and diameter as listed for the right-hand model. (See NOTES 1 & 2)

NOTE 6. Interchangeability

Governors

Hartzell governors with a "Z" suffix in their model designation may be used interchangeably with corresponding governors without the "Z". For example, the F-6-24Z is a replacement for the F-6-24 and the F-6-24 is a replacement for the F-6-24Z.

NOTE 7. Accessories

- (a) Propeller anti-icing (weight of anti-icing equipment extra)
 - (1) Approved with fluid feed boots listed on Hartzell approved type design data when installed in accordance with Hartzell specification H-S-2 or Hartzell Manual no. 133().
 - (2) Approved with Hartzell fluid feed equipment on propeller models for which equipment is available.
- (b) Propeller deicing (weight of deicing equipment extra)
 - (1) Approved with Goodyear Ice Guards (electrical propeller deicer) when installed in accordance with instructions outlined in Goodyear Report no. AP-147 dated October 23, 1961.
 - (2) Approved with Goodrich electrical deicing kit 5EXXXX-X, 7EXXXX-X, 77-XXX, 67-XXX, or 65-XXX when installed in accordance with Goodrich Report no. ATA 30-60-07.
 - (3) Approved with Safeway 6870 deicer boots when installed in accordance with manufacturer's instructions.
- (c) Propeller spinner (weight of spinner extra)
 - (1) Approved with Hartzell and other manufacturer's spinners when listed on Hartzell approved type design data.

NOTE 8. Shank Fairings Not applicable.

NOTE 9. Special Limits

Table of Propeller - Engine Combinations

Approved Vibrationwise for Use on Normal Category Single Reciprocating Engine Tractor Aircraft

The maximum and minimum propeller diameters that can be used from a vibration standpoint are shown below. No reduction below the minimum diameter listed is permissible, since this figure includes the diameter reduction allowable for repair purposes.

The engine models listed below are the configurations on the engine type certificate unless specifically stated otherwise. Modifications to the engine or airframe that alter the power of the engine models listed below during any phase of operation have the potential to increase propeller stresses and are not approved by this list. Such modifications include, but are not limited to, the addition of a turbocharger or turbnormalizer, increased boost pressure, increased compression ratio, increased RPM, altered ignition timing, electronic ignition, full authority digital engine controls (FADEC), or tuned induction or exhaust. Also, any change to the mass or stiffness of the crankshaft/counterweight assembly is not approved by this list.

<u>Hub</u> <u>Model</u>	<u>Blade</u> <u>Model</u>	<u>Engine Model</u>	<u>Max Dia</u> <u>(inches)</u>	<u>Min Dia</u> <u>(inches)</u>	<u>Placards</u>
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No entries

NOTE 10. Special Notes

Propeller installation must be approved as part of the aircraft Type Certificate and demonstrate compliance with the applicable aircraft airworthiness requirements.

NOTE 11. Retirement Time

(a) Life Limits and Mandatory Inspections

- (1) Airworthiness limitations, if any, are specified in Hartzell Manuals 117().

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